

Defence Self-Reliance and Plan 'B'

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For 118 years, since Federation in 1901, the notion of “self-reliance” has been one of the two most troublesome topics within Australian defence thinking. The other has been “strategy”, and it is no coincidence that the two have been ineluctably linked.

The central question has been this: what level of military preparedness is necessary to achieve credible self-reliance? What do we need to do to be capable of fighting and winning against a peer competitor by ourselves? Or, to reverse the question, to what extent can we compromise that necessary level of preparedness before we condemn ourselves to becoming defence mendicants – to becoming a nation reliant for our security on others, who may or may not turn up when our call for help goes out?

Pressure points within this complex matrix of competing ideas and interests include leadership, politics, finance, geography, industry, innovation, tradition, opportunism, technology and population. My presentation will touch on each of those subjects, with special reference to aerospace capabilities.

My paper’s title implies that we have a Plan A, which is indeed the case. Plan A is, of course, that chestnut of almost every conference on Australian defence, namely, our dependence on a great and powerful friend to come to our aid when the going gets tough. From Federation until World War II that meant the United Kingdom; since then, the United States. The strategy, if it can be called that, is simple. Australia pays premiums on its national security by supporting our senior allies in wars around the globe; in return, in times of dire threat, they will appear over the horizon and save us. That is, we will cash-in our insurance policy.

The United Kingdom and the United States have been good friends, and we could be reasonably confident that they would arrive in strength if needed. Plan A nevertheless clearly rests on a potentially fatal act of trust. And as that applies today, it’s cautionary to note that Defence Minister Christopher Pyne and former ambassador to Washington Kim Beazley have both publicly questioned the trustworthiness of the current American administration.¹ Thomas Wright from the Brookings Institution recently described Trump’s foreign policy as one which recognises “no

¹ Quoted in the *Washington Post*, July 19, 2016; see also Kim Beazley, “Defence policy in an era of disruption”, in *The Strategist*, <https://www.aspistrategist.org.au/defence-policy-in-an-era-of-disruption/>, 8 Dec 2018, accessed 4 April 2019.

permanent friends”, which “places little value in historical ties”, and which is “deeply suspicious of US allies”.²

It is also the case that paying the premiums on Plan A can draw us into wars of choice of obscure relevance, or which are morally dubious. Thus, from the very outset, at the time of Federation, Australian Colonial and Commonwealth forces were deployed to South Africa and then China, in the first instance to enforce British commercial and imperial interests in a conflict which saw our soldiers associated with the world’s first concentration camps;³ in the second instance, to again enforce British commercial interests, including the opium trade.⁴ It was all part of what George Orwell was later to call doing “the dirty work of Empire”.⁵ Similar political and social deafness attended our involvement in the invasions of Vietnam, Iraq and Afghanistan.

Turning to Plan B – that is, to a military posture based on the premise that Australians will assume the burden of combat of defending their own country - it is not well-understood that, when in 1914 we first went to war fully as a nation, we actually won a major victory with precisely that approach. Furthermore, because of the domination over our national consciousness of the Great War of Gallipoli, the Western Front, and the myth of Anzac and the digger, nor is it well-understood that that victory was won, not by soldiers, but the Royal Australian Navy.

When World War I began the the RAN had existed for only a handful of years, but astute management had made it into a proficient fighting force.⁶ Officers and ratings were well-trained and the fleet, while small, was suited to the task at hand.

Two missions in the Indian and Pacific Oceans were critical: neutralising German military bases and colonial territories, and protecting trade and troopship routes. The Navy executed both missions rapidly with impressive professionalism, and then settled-in to an unrelenting four-year campaign of patrolling and protecting. It was the convergence of strategy and preparedness represented by this largely unheralded campaign – by Plan B, if you will – that secured Australia’s territorial integrity during World War I.

As is almost invariably the case with a Plan B, however, there are caveats to be made regarding the boundaries of “self-reliance”. In 1914, the RAN was controlled by the Admiralty in London; the entire fleet had been built in the UK; specialist training had been provided by the Royal Navy;

² Thomas Wright, “Trump’s Foreign Policy is No Longer Unpredictable”, in *Foreign Affairs*, January 18, 2019.

³ Henry Reynolds, *Unnecessary Wars* (Sydney: NewSouth Publishing, 2016). Reynolds writes of Australian troops committing “atrocities for empire”.

⁴ Australian War Memorial, “China (Boxer Rebellion), 1900-01”, <https://www.awm.gov.au/articles/atwar/boxer>, accessed 4 April 2019.

⁵ George Orwell, “Shooting an Elephant”, in *New Writing* (1936), at <http://www.online-literature.com/orwell/887/>, accessed 4 April 2019.

⁶ See David Stevens, *In All Respects Ready: Australia’s Navy in World War I* (Melbourne: OUP, 2014).

and many of the crews were either recruited or seconded from the RN. Nevertheless, the fact remains that it was the Australian Navy, and not the forces of any great and powerful friend, that assumed the burden of responsibility of defending our continent.

In the period between the world wars, Australia's political and military leaders proved incapable of developing a military strategy and industrial base commensurate with our geostrategic circumstances, the threat of Japan, and emerging technologies. The consequence of this failure was an expedient dependence on the so-called Singapore strategy, under which, in the event of war with Japan, the Royal Navy would steam to our rescue. This amounted to nothing less than an abandonment of sovereign responsibility. It was the strategic equivalent of throwing our hands in the air and hoping for the best, and it was the very worst manifestation of Plan A.

In the event, when in December 1941 the United Kingdom couldn't come to our rescue for the very good reason that it was fully occupied fighting for its own survival, Australia was suddenly exposed and vulnerable.

Could we have done better? The Royal Navy's commander at the Battle of Jutland, Admiral of the Fleet Lord Jellicoe, thought so.

Jellicoe had visited Australia in 1919 to advise the government on maritime defence. His report included a well-argued and detailed section on the possible future use of a disruptive technology – namely, aircraft – against ships and submarines. Jellicoe concluded that air attack represented a serious and growing threat to navies, and that air power offered great potential for the defence of Australia.⁷ His report was rejected by the RN and, therefore, by the RAN.

Whether or not aircraft would be able to find and sink warships at sea was one of the most hotly debated issues in defence circles during the 1920s and 1930s, with trials conducted by the United States and the United Kingdom indicating that they could and would.⁸

But despite calls in Australia for new thinking on defence from people such as Stanley Bruce, John Curtin, Joseph Lyons and Richard Williams, institutional biases and faith-based thinking could not, like battleships, easily be made to change direction. During the inter-war years, the RAN received about 60 per cent of all defence appropriations, the Army about 30 per cent, and the RAAF 10 per cent.⁹ Despite that financial largesse, when the war began the RAN amounted to little more than an auxiliary squadron of the RN, with no capability to defend Australia without

⁷ Viscount Jellicoe, "Report on Naval Mission to Australia", May-August 1919, cited in Alan Stephens (ed), *Defending the Air/Sea Gap: Exploiting Advanced Technology and Disproportionate Response to Defend Australia* (Canberra: Australian Defence Studies Centre, 1992), 9.

⁸ Alan Stephens, *Power Plus Attitude: Ideas, Strategy and Doctrine in the Royal Australian Air Force 1921-1991* (Canberra: AGPS, 1992), 34-36.

⁹ Official Year Books of the Commonwealth of Australia, 1919-1938.

major reinforcement.¹⁰ Yet had one-quarter of naval expenditure been invested in next-generation technology, Australia might have fielded some 500 modern strike/reconnaissance aircraft armed with bombs and torpedos.¹¹

My point here is not whether one form of traditional combat power is “better” than another; rather, it concerns taking responsibility and remaining open to new ideas.

Before moving on to World War II, I want to elaborate on the topic of new ideas, using Lawrence Wackett and the aircraft industry as my exemplars.

A Duntroon graduate who had distinguished himself as a pilot and inventor with the Australian Flying Corps in World War I, the mercurial “L.J.” was the driving force behind the establishment of the RAAF’s Experimental Section at Randwick in 1924.¹² Wackett’s initiative was supported by the chief of the air staff, Richard Williams, who understood that it is primarily through indigenous innovation and experimentation that a military force is likely to achieve a decisive technological advantage. The Experimental Section was shut-down in 1930 because of cost-cutting, and coercion from the British aircraft industry, which wanted to safeguard its privileged position in the Australian market.

By 1936 the menace of Japan demanded action. A syndicate of businessmen headed by Essington Lewis from BHP established the privately-owned Commonwealth Aircraft Corporation, with L.J. Wackett as manager and chief designer.¹³ In July 1939 the government followed suit, forming its own Aircraft Production Branch, later known as the Department of Aircraft Production and then the Government Aircraft Factories.¹⁴

Between 1939 and war’s end, Australian factories built 6360 aircraft, including advanced types such as the Beaufighter, Mosquito and Mustang, an achievement which subsequently prompted some historians to argue that Australia was “armed and ready” for war with Japan.¹⁵ But while the rapid development of an indigenous aircraft industry was a major success, there were limits.

¹⁰ The RAN’s two heavy cruisers were over 10 years old and its four light cruisers 17 years old. There was also a “scrap iron flotilla” of five 20-year old destroyers on loan from the RN, and two Australian-built sloops.

¹¹ In 1930 it was possible to buy 152 bomber aircraft for the price of a single 10,000-ton cruiser. See *Jane’s Fighting Ships* (London, 1929); and “RAAF the Cinderella of the Services”, in *Aircraft*, 1 August 1931, 14-15.

¹² See Sir Lawrence Wackett, *Aircraft Pioneer* (Sydney: Angus and Robertson, 1972).

^{13,14} See B.L. Hill, *Wirraway to Hornet: A History of the Commonwealth Aircraft Corporation Pty Ltd, 1936 to 1985* (Bulleen: Southern Cross Publications, 1998).

¹⁴ For an excellent account of these developments, see Brian Weston, “The Australian Aircraft Industry”, Working Paper No. 12 (Canberra: Air Power Development Centre, 2008).

¹⁵ A.T. Ross, *Armed and Ready: The Industrial Development and Defence of Australia 1900-1945* (Sydney: Turton & Armstrong, 1994). For aircraft production numbers, see Joan Beaumont, *Australian Defence: Sources and Statistics* (Melbourne: OUP, 2001), 453.

To start with, getting the local industry up and running took time; consequently, Australia did not start building advanced platforms in reasonable numbers until 1943. Furthermore, we remained largely reliant on foreign sources for modern in-line engines, with the most notable locally-made power plant being the Pratt & Whitney radial Twin-Row Wasp.¹⁶ And finally, a vast investment was required. In 1935/36 Australia's total defence expenditure was £6.8 million; in 1944/45 it was £460 million.¹⁷

The fact is, when Australia declared war on 3rd September 1939, the nation was pitifully unprepared for sustained, high-intensity, self-reliant combat. Worse still, when Japanese air forces bombed Darwin on 19th February 1942, the United Kingdom was still hanging-on grimly against the Nazis, and the United States was still reeling from the attack on Pearl Harbor.

Australia's Plan A, as represented by the Singapore strategy, was exposed as wishful thinking, and we were alone, vulnerable, and panic-stricken.

I want to make two final observations regarding World War II, one on the relationship between self-reliance and strategy; the other on disruptive technologies.

Because Australia was dependent on our great and powerful friends for supplies of most combat aircraft until about 1943, we had little choice other than to accept what we were given. Accordingly, while the UK and the US were exceedingly generous in sending us some of their best types, including Spitfires and Kittyhawks, at a time when they were under desperate pressure themselves, on other occasions we were fobbed-off with obsolescent machines that no-one else wanted, such as Brewster Buffalos and Vultee Vengences.¹⁸ That's not a criticism, it's simply an acknowledgement of reality.

As to strategy, notwithstanding our national consciousness of war again being largely shaped by events on land, in this instance the fighting along the Kokoda Track, and the horrific treatment of prisoners-of-war in Southeast Asia, the critical events for the defence of Australia once more took place in the maritime domain. I refer to the victories of American naval air power at Coral Sea and Midway in May-June 1942; and of American and Australian land-based air power in the Bismarck Sea in March 1943. Once again, the issue was one of having a strategy and force structure relevant to the times.

Turning to disruptive technologies, I'll use munitions as an example to infer the general from the particular.

¹⁶ Beaumont, 453. Australia built 870 Twin-Row Wasp engines, which were used to power the RAAF's B-24 Liberators, among other platforms.

¹⁷ Beaumont, 31.

¹⁸ Stephens, *Power Plus Attitude*, 79.

Australia has been designing and manufacturing a wide range of small arms, rounds, bombs, rockets, mortars, grenades, mines, and much more, for over a century.¹⁹ That industry has been fundamental to our national defence posture, but none of it warrants the description “disruptive”. A little-known exception, however, was the acquisition by the RAAF in 1943 of sufficient stocks of mustard gas and casings to build about 22,000 bombs.²⁰ By 1945 trials had been conducted and plans drawn-up for the RAAF to drop those weapons from its fleet of 250 B-24 Liberator heavy bombers.²¹

Weapons of mass destruction are contentious. They are also inherently strategically disruptive and, as demonstrated by North Korea - a state which by any other measure is degenerate and broken - they concentrate the minds of potential enemies. That’s not necessarily to say that Australia should acquire WMD, but it is to say that the subject needs to be raised. In the context of genuine self-reliance, such disruptive capabilities fundamentally redefine a nation’s capability to shape, influence and deter.

I want now to move to July 1949, when the Australian government awarded a contract to CAC to design and build a “Long-Range All-Weather Attack Fighter” for the RAAF. Designated the CA-23, the prototype was scheduled to fly within a year.²² Instead, after much official procrastination, the project was cancelled in 1952.

The CA-23 proved to be a metaphor for what was to come for Australia’s combat aircraft industry. Good intentions notwithstanding, it gradually became apparent that, given the inadequate funding provided by government, any ambition to sustain an indigenous capability to even assemble, let alone design and build, advanced combat aircraft was unrealistic.

The era seemed to start well enough, with the local construction of the de Havilland Vampire, GAF Canberra and CAC Sabre. The Avon Sabre in particular incorporated significant redesign, to the extent that when it became operational in 1954 many considered it the best F-86 variant in the world. The trouble was that by then other defence forces were on the verge of introducing delta-wing, Mach 1.5 plus, high-altitude interceptors as their first line of air defence.

¹⁹ See Chris Coulthard-Clark, *Breaking Free: The ADI Story* (Melbourne: Australian Scholarly Publishing, 1999); and Beaumont, 452.

²⁰ RHS, War Cabinet Minute 2637, 15 February 1943; NAA, CRS A2670, War Cabinet Agendum 32/1945; RHS, War Cabinet Agendum 453/1945, 4 October 1945.

²¹ The RAAF also intended to use its B-25 Mitchells to drop mustard gas bombs. Orders were placed with the US for 40,000 type M47 1000-lb bombs and 4000 type M78 500-lb bombs. Stephens, *Power Plus Attitude*, 81.

²² Neville Parnell and Trevor Boughton, “Sep 1948”, in *Flypast: A Record of Aviation in Australia* (Canberra: AGPS, 1988), 226.

Indigenous design and production of manned aircraft during the era of CAC and GAF was limited to the Winjeel, an ab initio trainer, and the often-maligned Nomad general purpose aircraft. Given the current irresistible rise of unmanned platforms, it is noteworthy that “by far the most successful Australian aircraft design” was the GAF Jindivik, a remotely controlled target vehicle that remained in production from 1950 to 1986 and which was exported to the UK, the US and Sweden.²³

What ensued was the gradual decline of Australia’s military aircraft construction industry. Types such as the Mirage, MB-326 and F/A-18 were fabricated from a mixture of imported and locally-made components; CAC and GAF were sold-off in the mid-1980s; and the RAAF’s Super Hornets, Growlers and F-35s are fully-imported.

Perhaps we shouldn’t be surprised. More broadly in terms of self-reliance, government investment in scientific research currently is at its lowest level for forty years.²⁴ And according to the authoritative Bloomberg Index, the country ranked first in the world for innovation, South Korea, spends more than twice as much on relevant research as the country ranked nineteenth, Australia.²⁵

Despite this failure of leadership at the political level, the RAAF at least seems to have recognised the challenge. For one hundred years, air power’s fundamental game-changer has been bigger and better piloted fighter and bomber aircraft. Now, however, channelling their inner Sir Richard Williams, the Air Force’s senior leadership appears to have redefined Australian air power through the agency of Project Jericho. Described as a “marriage of minds and machines”, Jericho implies a transformed organisation based on artificial intelligence, robotics, machine learning, manned-unmanned teaming, networks, and innate intellectual flexibility.²⁶

Concurrently, and channelling their inner L.J. Wackett, the Air Force, the Defence Science and Technology Group and the Boeing Company have announced the cooperative development of a stealthy unmanned combat air vehicle under the rubric of “Loyal Wingman”.²⁷ This is the most

²³ Stewart Wilson, *Military Aircraft of Australia* (Weston Creek: Aerospace Publications, 1994), 120. 502 Jindiviks were built.

²⁴ Robert Bolton, “Government spending on scientific research hits 40-year low”, in the *Australian Financial Review*, 17 December 2018; Peter Hartcher, “So much for the clever country, we’re squibbing it”, in *The Sydney Morning Herald*, 16 November 2018.

²⁵ Michelle Jamrisko, Lee Miller and Wei Lu, “The world’s most innovative countries”, in *The Sydney Morning Herald*, 23 January 2019; Ian Burrows, “Which is the most innovative country in the world? Well, it’s not Australia”, in ABC News, 27 January 2019.

²⁶ See Brendan Nicholson, “RAAF marrying minds and machines” (parts 1 & 2), in *The Strategist*, 26-27 February 2019.

²⁷ Andrew McLaughlin, “Dawn of our Loyal Wingman”, in *Australian Aviation*, April 2019, 39-43; Bradley Perrett and Graham Warwick, “Team Player”, in *Aviation Week & Space Technology*, March 11-14, 2019, 16-19; and Malcolm Davis, “Loyal Wingman to take Australia’s airpower into the next generation”, *The Strategist*, ASPI, 7 March 2019, at <https://www.aspistrategist.org.au/loyal-wingman-to-take-australias-airpower-into-the-next-era/>, accessed 4 April 2019.

exciting initiative undertaken by the Australian aerospace community since World War II. If the project succeeds, the implications are profound.

Let me summarise.

For most of our history, Australia has been unwilling to confront the imperatives of a defence posture which would require us to assume the burden of responsibility. Consequently, when faced with our only existential threat, in World War II, we were left dangerously exposed; while on other occasions, the apparent need to pay regular premiums on Plan A has drawn us into morally dubious wars of choice. In short, Plan A has distorted our strategic thinking and compromised our independence.

If Australian defence is to be credibly self-reliant – if we are to have a Plan B – we can start by looking to the examples of those individuals and local industries that have challenged traditionalists and science-deniers, and have instead embraced innovation and transformation.